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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,478	12/12/2003	Eugene F. Greneker III	062020-1410	2471
24504	7590	03/10/2006	EXAMINER	
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948			SOTOMAYOR, JOHN B	
			ART UNIT	PAPER NUMBER
			3662	

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/735,478	GRENEKER ET AL.	
	Examiner	Art Unit	
	John B. Sotomayor	3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 6-11, 13-19, 21, 22, 24-27, 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over McEwan ('208) in view of Wright ('455).

The invention is considered to be essentially disclosed by McEwan ('208) who show a body monitoring and imaging including, inter alia, a radar system including an antenna system capable of scanning an object and is capable of detecting heart and respiratory motion through a surface. McEwan ('208) discloses that Figure 7 (reprinted below) shows a monitor 100, which operates in a generally similar way to the monitor 1 of FIG. 1, but has been modified for remotely detecting heart and respiratory motion through materials such as a mattress pad, a chair back, etc. The antennas of the monitor 100 have been modified to permit greater scanning range. The audible output has been deleted; however, one skilled in the art can optionally add this feature. A range control is provided, and can be set to detect respiration at a distance of about 6 feet. Identical numeral references in FIGS. 1 and 7 refer to identical components having identical functions. (Emphasis added).

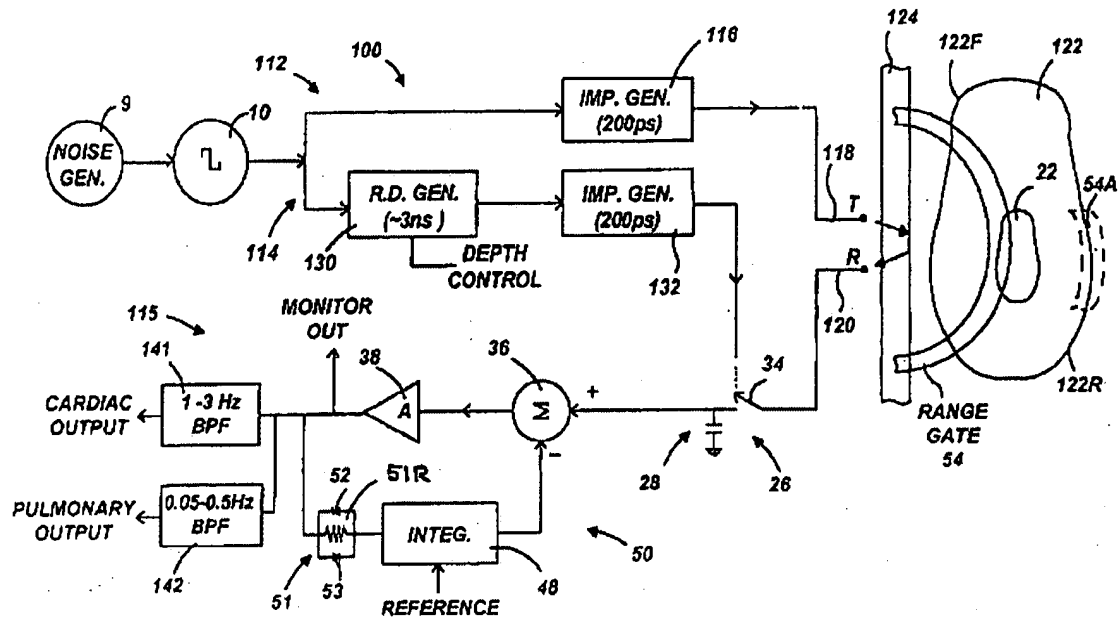


FIGURE 7

However, it is argued that McEwan ('208) does not show a movable antenna.

While Examiner submits that moving an antenna or array in order to scan and/or detect a moving object is considered to be known in the art, Wright ('455) is applied to show such an arrangement. Wright ('455) discloses at paragraph [0002] that conventional ground penetrating radar (GPR) surveys are generally conducted by moving the radar antennas over the surface of the underground medium of interest along a prescribed grid pattern while taking a continuous series of radar "photographs" directly into the ground. These data are subsequently processed and integrated into composite cross-sectional displays of the underground, from which profiles of various

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geologic features can be discerned, and anomalies (i.e., discontinuities in an otherwise homogenous volume, or "targets") can be pinpointed.

Thus it would have been obvious to one of ordinary skill in the art to provide the antenna in McEwan ('208) with scanning ability as taught and as motivated by Wright ('455) in order to track or locate an object of interest.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-5, 12, 20, 28, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over McEwan ('208) in view of Wright ('455) and further in view of the article to Chuang et al.

The invention is substantially disclosed by McEwan ('208) in view of Wright ('455) who disclose a radar system for detecting heart and respiratory movement of a person behind a structure such as a wall capable of being scanned along a surface in order to detect and locate an object of interest. However it appears that McEwan ('208) in view of Wright ('455) does not disclose the use of absorbers. While it is noted that absorbers are well known for their use in eliminating unwanted signals, Examiner applies the

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article to Chuang et al to specifically show the use of an absorber to unwanted microwave scattering (see page 179 second column).

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an absorber in the combination of McEwan ('208) in view of Wright ('455) as taught and as motivated by the article to Chuang et al in the same field of endeavor, i.e. respiratory motion detection systems, in order to mitigate any unwanted microwave backscatter signals. The remaining claims are either considered to be shown by the prior art or are considered to be well known technical variations in the radar art. For example, the operating frequency in the 10GHz range is shown in the prior art, digital shaft encoders to track the position of an antenna are well known in the art, etc.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art show various radar systems.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Sotomayor whose telephone number is 571-272-6978. The examiner can normally be reached on Monday to Friday from 8:30AM to 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom H. Tarcza, can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John B. Sotomayor
Primary Examiner
Art Unit 3662